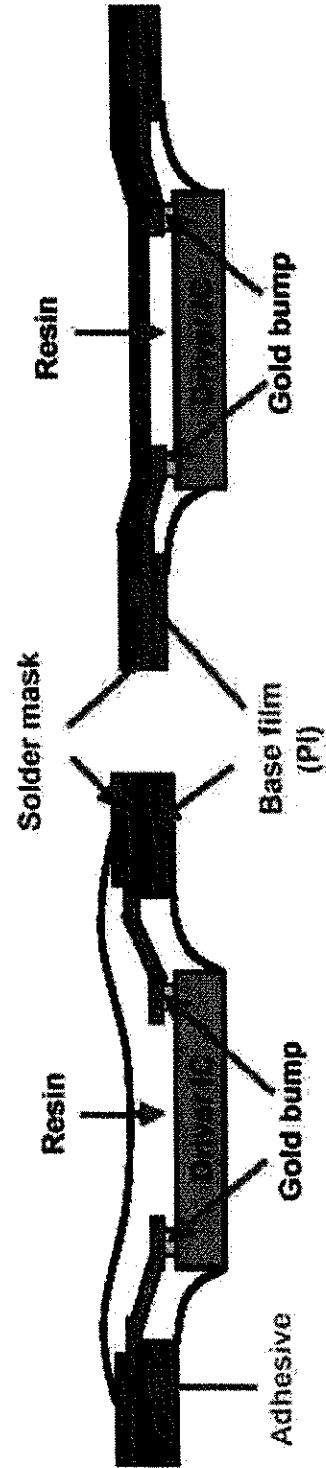
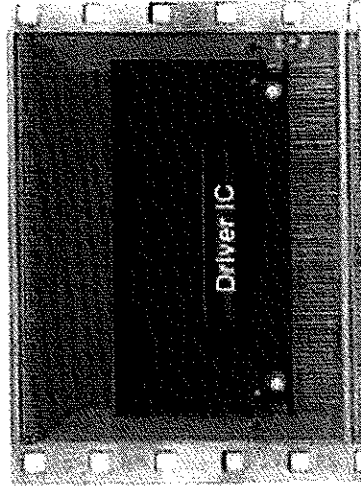
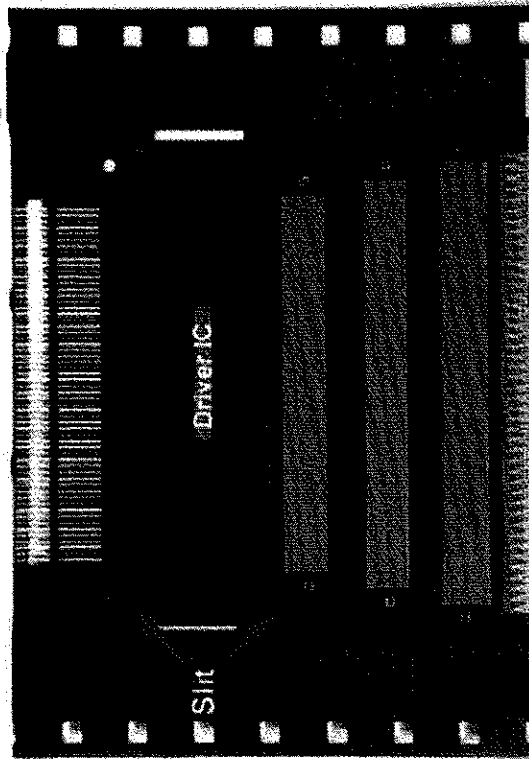


Exhibit 15

PHILIPS

• TCP&COF package comparison (1/4)



Source: ChipMOS 2001 technology symposium

PSK-TDD, Mj Wu, 2002-05-31

CPT-D 19159

PHILIPS

• TCP&COF package comparison (2/4)

COF 46um

TCP 105um

(8+38)

Copper (8/12 um)
PI (25/38 um)

Copper (18 um)
Adhesive (12 um)
PI (75 um)

Solder mask

COF		TCP	
Type	Kapton 150EN	Type	Upilex S
Thickness	25/38 um	Thickness	75 um
Flexibility	Good	Flexibility	Poor
Strength	Average	Strength	Good
Bending Slit	No need	Bending Slit	Need
ILB Pitch	~30 um	ILB Pitch	~45 um
Device Hole	No need	Device Hole	need
Copper Foil	Electro-deposited	Copper Foil	FQ-VLP
Thickness	8/12 um	Thickness	18 um
Adhesive	-	Adhesive	#7100
Solder Resist	SN-9000	Solder Resist	AR-7100
Layer	AR-7100	Layer	AE-70-M11
	2		3

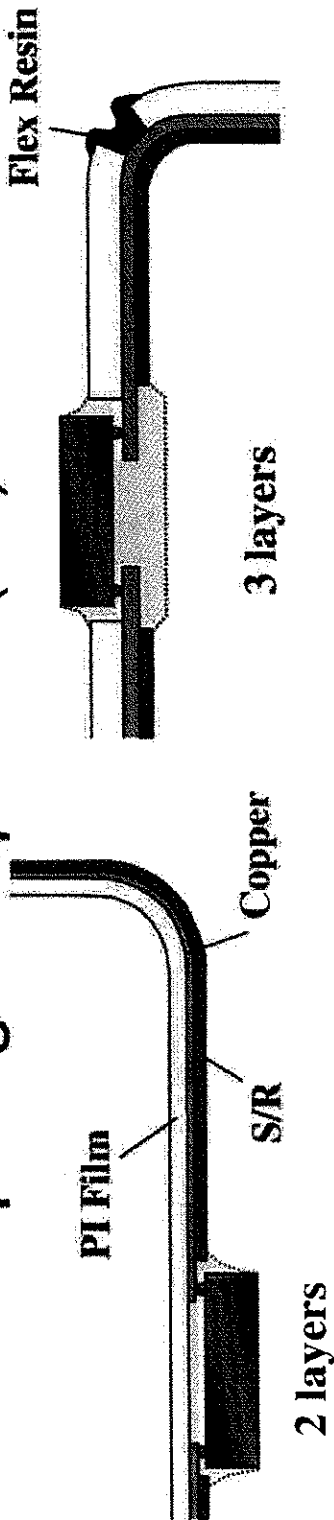
Source: ChipMOS 2001 technology symposium

PSK-TDD, Mj W4, 2002-05-31

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PHILIPS

TCP&COF package comparison (3/4)



COF	TCP
<ul style="list-style-type: none"> • No Flying Leads • For Finer Pitch Chip • High Flexibility thin film, no flex slit • Can use less sprocket hole • Routing in die area is possible 	<ul style="list-style-type: none"> • Flying Leads • For Min.40um pitch Chip • Flex resin needed

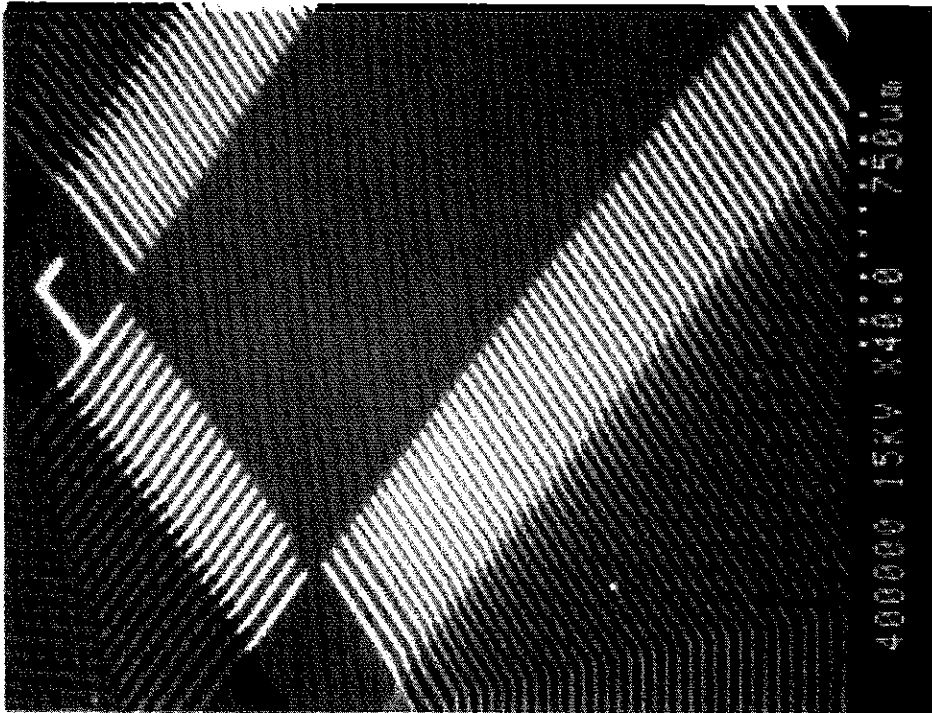
Source: IST 2002 presentation

PSK-TDD, Mj W-12002-03-31

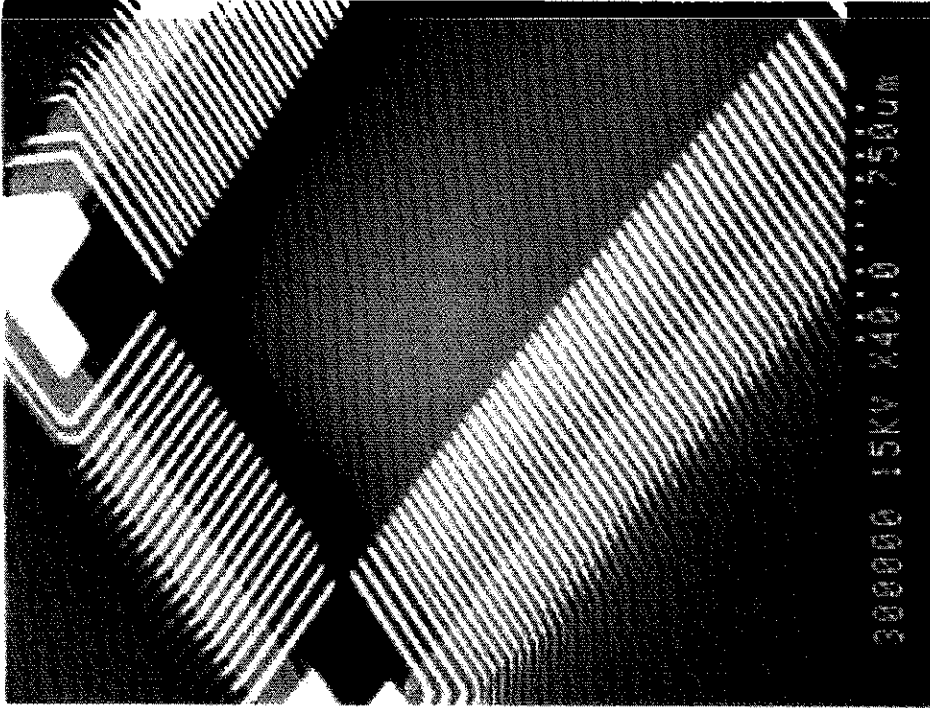
CPT-D 19161

PHILIPS

• TCP&COF package comparison (4/4)



COF Photo (x40)



TCP Photo (x40)